

REMARKS

Upon entry of the Amendment, Claims 1-19 and 21-22 are all the claims pending in the application. Claims 1-3, 7-12, 16 and 18 are canceled. Claims 4 and 13 are rewritten in independent form. Entry of the Amendment is respectfully requested along with reconsideration and review of the claims on the merits.

Preliminary Matters

Applicant appreciates the Examiner accepting the drawings filed on June 26, 2001.

Applicant also appreciates that, on the Office Action Summary sheet, the Examiner has acknowledged Applicant's claim for foreign priority and indicated that all of the certified copies of the priority documents have been received.

Applicant also appreciates that the Examiner has returned initialed and signed copies of the Information Disclosure Statements submitted to the USPTO on April 18, 2001, and March 19, 2003.

The Examiner states that Applicant's election without traverse of Claims 1-19 is acknowledged.

Claim Rejections - 35 U.S.C. § 102

Certain Claims¹, including Claim 1, are rejected under 35 U.S.C. § 102(e) as assertedly being anticipated by Ye et al (US 6,080,529) for the reasons given in the Office Action.

Applicant responds as follows.

Claims 1-3, 7-12, 16 and 18 are canceled, thereby making the rejection of any of these claims moot.

Claims 4 and 13 are rewritten in independent form by incorporating the subject matter of Claims 2 and 11, respectively, now canceled.

Applicant's invention is directed to the etching of an organic low dielectric constant film and a silicon-containing film. Etching of the silicon-containing insulating film is accomplished using a photo-resist pattern as a mask, and then etching the organic low dielectric constant film with NH₃-containing gas using the silicon-containing insulating film as a mask, so that the shoulder drop of the silicon-containing insulating film can be prevented, and through-hole with an approximately vertical cross-section shape and the same opening diameter as the openings of the photo-resist pattern are formed, that is, etching gas is optimized according to the double layer structure corresponding to an organic low dielectric constant film and a silicon-containing film.

On the other hand, USP 6,080,529 (Ye) discloses NH₃ as an etching gas of FLARE (polyarylene ether). However, NH₃ is one of the etching gases in Ye, and the characteristic of Applicant's invention described above is not disclosed.

¹ Applicant notes that the Detailed Action appears to contain an error in listing the claims rejected under 35 U.S.C. § 102(e). Paragraph 3 recites "Claims 1 [sic] are rejected under 35 U.S.C. § 102(e)...". Applicant kindly requests clarification of the Examiner's rejection in the next Office correspondence.

AMENDMENT UNDER 37 C.F.R. § 1.111

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Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. § 102(e).

Claim Rejection – 35 U.S.C. § 103

Claims 17-19 are rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over Ye as applied to claim 16 above, and further in view of Chiang et al (US 5,817,572) for the reasons given in the Office Action.

Applicant responds as follows.

Applicant's invention is patentable for at least the same reasons as given above in Applicant's traversal of the rejection under 35 U.S.C. § 102(e). Applicant submits that Chiang fails to overcome the deficiencies of Ye as the primary reference.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a).

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

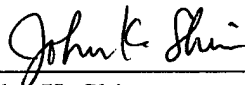
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